

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 005092.00057	FOR FURTHER ACTION		see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.
International application No. PCT/ US 03/ 17274	International filing date (day/month/year) 03/06/2003	(Earliest) Priority Date (day/month/year) 04/06/2002	
Applicant PROTASIS CORPORATION			

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 4 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of invention is lacking** (see Box II).

4. With regard to the **title**,

☐ the text is approved as submitted by the applicant.

☒ the text has been established by this Authority to read as follows:

METHOD AND DEVICE FOR ULTRASONICALLY MANIPULATING PARTICLES WITHIN A FLUID

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.

☐ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☒ because this figure better characterizes the invention.

25

☐ None of the figures.

INTERNATIONAL SEARCH REPORT

International Application No.

PCT/US 03/17274

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 B01D43/00 B01D51/08 B01D21/00 A61M1/36

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B01D A61M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P, X	WO 02 072234 A (ALLERS MATS ; ERYSAVE AB (SE); JOENSSON HENRIK (SE); LAURELL THOMAS) 19 September 2002 (2002-09-19) figures 4A, 4B, 4C, 4D, 5	1-4, 6, 7, 15, 38, 40, 73, 85
X	US 6 245 207 B1 (YASUDA KENJI ET AL) 12 June 2001 (2001-06-12) figure 3	1-4, 38
X	US 4 523 682 A (STONEBURNER JAMES D ET AL) 18 June 1985 (1985-06-18) figures 1, 2	1-4, 38
X	US 6 332 541 B1 (COAKLEY WILLIAM TERENCE ET AL) 25 December 2001 (2001-12-25) figure 3	1-4, 15
	-/--	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *Z* document member of the same patent family

Date of the actual completion of the international search

28 November 2003

Date of mailing of the international search report

09/12/2003

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Hoffmann, A

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 03/17274

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6 273 262 B1 (YASUDA KENJI ET AL) 14 August 2001 (2001-08-14) figures 2,3 ---	39, 42, 43, 45, 47, 50, 53, 56
A	EP 0 773 055 A (HITACHI LTD) 14 May 1997 (1997-05-14) figure 13 ---	20-23
A	GB 2 098 498 A (SECR DEFENCE) 24 November 1982 (1982-11-24) abstract; figure 1B ---	20, 21, 23
A	US 5 164 094 A (STUCKART WOLFGANG) 17 November 1992 (1992-11-17) figures 2A, 2B, ---	20, 21, 23
X	WO 00 04978 A (COAKLEY WILLIAM TERENCE ;CEFAI JOSEPH (GB); BARROW DAVID ANTHONY () 3 February 2000 (2000-02-03) abstract; figure 1 ---	85
A	US 5 831 166 A (MITOME HIDETO ET AL) 3 November 1998 (1998-11-03) figure 6 -----	22

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 03/17274

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 02072234	A	19-09-2002	WO 02072234 A1	19-09-2002
			WO 02072236 A1	19-09-2002
			CA 2439257 A1	19-09-2002
			SE 0100819 A	10-09-2002
			WO 02072235 A1	19-09-2002
US 6245207	B1	12-06-2001	JP 11326155 A	26-11-1999
US 4523682	A	18-06-1985	NONE	
US 6332541	B1	25-12-2001	AU 7223798 A	27-11-1998
			WO 9850133 A1	12-11-1998
			GB 2340769 A , B	01-03-2000
			JP 2001525722 T	11-12-2001
US 6273262	B1	14-08-2001	JP 2000024431 A	25-01-2000
EP 0773055	A	14-05-1997	JP 9122480 A	13-05-1997
			DE 69628389 D1	03-07-2003
			EP 0773055 A2	14-05-1997
			US 5902489 A	11-05-1999
GB 2098498	A	24-11-1982	NONE	
US 5164094	A	17-11-1992	AT 389235 B	10-11-1989
			AT 126987 A	15-04-1989
			WO 8809210 A1	01-12-1988
			AT 68369 T	15-11-1991
			AU 1726288 A	21-12-1988
			CA 1320151 C	13-07-1993
			DE 3865526 D1	21-11-1991
			EP 0292470 A1	23-11-1988
			EP 0362233 A1	11-04-1990
			ES 2027423 T3	01-06-1992
			GR 3003471 T3	17-02-1993
			JP 2503528 T	25-10-1990
			NO 890219 A , B ,	18-01-1989
			PL 272541 A1	20-03-1989
			RU 2067079 C1	27-09-1996
WO 0004978	A	03-02-2000	GB 2339703 A	09-02-2000
			AU 5055599 A	14-02-2000
			EP 1096985 A1	09-05-2001
			GB 2369308 A , B	29-05-2002
			WO 0004978 A1	03-02-2000
			US 2002154571 A1	24-10-2002
US 5831166	A	03-11-1998	JP 2700058 B2	19-01-1998
			JP 9193055 A	29-07-1997